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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,379	01/09/2002	Takashi Kondo	245402004000	5474

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EXAMINER	
PHAM, HUNG Q	
ART UNIT	PAPER NUMBER
2159	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/040,379	KONDO ET AL.	
	Examiner	Art Unit	
	HUNG Q. PHAM	2159	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 February 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *23,24,27 and 28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *23,24,27 and 28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/27/09 has been entered.

Response to Arguments

Applicant's arguments with respect to the rejection of claim 23 have been fully considered but they are not persuasive.

As argued by applicant (Remarks, Page 4):

> *Claims 23, 27 and 28 have been amended to recite retrieving a desired image containing image data which is identical to the image data cut out from the registered image. Koike fails to teach or suggest this feature. Rather, Koike teaches that the object region detecting section 109 detects the matching position (Xmax, Ymax) and the dictionary image IDn where the degree of similarity r (n, X0, Y0) is maximal and outputs them to a feature point position determining section 110 (col. 5, lines 35-40). Thus, Koike chooses the image which is most similar, but does not retrieve an identical image. Thus, Koike fails to teach or suggest the features of the independent claims. Claim 24 is allowable at least due to its dependency from claim 23.*

The examiner respectfully disagrees.

The retrieved identical image is either anticipated by or obvious over Koike.

As taught by Koike, upon receiving a test image I_T, the matching region cut-out section cuts out a matching region image having a determined size based on a matching position initial value (X_0, Y_0) and provides the matching region image to the similarity computing section. Upon receiving the matching region image, the similarity computing section provides a readout

request to the dictionary image storage to read out dictionary images. In response to the request, the dictionary image storage reads out N dictionary images with the feature point positions (X_i, Y_i) as shown in FIG. 2 and outputs them to the similarity computing section, which in turn computes the degrees of similarity or resemblance r (n, X_0, Y_0), (where n= 1, 2,...N) between the matching region of the test image and the N dictionary images (Koike, Col. 4 -- Lines 45-67). The object region detecting section detects the dictionary image I_{Dh} where the degree of similarity r (n, X, Y) is highest, (Koike, Col. 5 -- Lines 50-60).

The Koike teaching as discussed indicates the more similar of the image in the dictionary storage with the test image, the higher of the degree of similarity. For example, if the calculated degree of similarity is expressed as a percentage, and if the degree of similarity of the image in the dictionary image storage and the test image is 100%, obviously, the image in the dictionary storage is identical with the test image.

In short, the Koike teaching as discussed reads on the claimed limitation ***retrieving a desired image data containing image data which is identical to the image data cut out from the database***, e.g., if the calculated degree of similarity is maximal, e.g., 100%, the image in the dictionary image storage is identical with the test image.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 27 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

A patentable process must (1) be tied to a particular apparatus or machine or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. See *In re Bilski, 545 F.3d 943, 88 USPQ2d 1385 (Fed. Cir. 2008)*. The method of claim 27 is non-statutory in view of *In re Bilski*, e.g., the recited method is not tied to a particular machine or apparatus, or it transforms a particular article into a different state or thing.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 23, 27 and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 23, the clauses, ***the registered image*** (line 4[1]), ***the registered image data*** (line 6[2]) and ***the displayed image*** (line 9), reference to other items in the claim. It is unclear what items are being referenced by these clauses.

Regarding claim 27, the clauses, ***the registered image*** (line 4) and ***the displayed image*** (line 9), references to other items in the claim. It is unclear what item is being referenced.

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[1] For the purpose of examination under 35 U.S.C. § 102/103, the clause ***the registered image*** is considered as being equivalent to any image that is displayed at line 3.
[2] For the purpose of examination under 35 U.S.C. § 102/103, the clause ***the registered image data*** is considered as being equivalent to any image data.

Regarding claim 28, the clauses, ***the registered image*** (line 6) and ***the displayed image*** (line 11), references to other items in the claim. It is unclear what item is being referenced.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 23, 24, 27 and 28 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Koike et al. [US 6,181,805 B1].

Regarding claims 23, 27 and 28, Koike teaches a method, program and apparatus for retrieving image data (Abstract) comprising:

a database for registering a plurality of images (FIG. 1, Col. 3 Lines 53-54, LIBRARY IMAGE STORAGE 104 is for images registering);

a display unit for displaying an image registered in the database on a display unit (A test image I_t captured from a camera is inputted into MATCHING SECTION 106 (Col. 4 Lines 40-45). The test image I_t is displayed as in FIG. 3);

a designator for designating an image area of the registered image displayed on display unit (Upon receiving the test image, the MATCHING REGION CUT-OUT SECTION 107A cuts out of the test image a matching region image having a predetermined size based on initial value (X_0, Y_0)

designated by POSITION SHIFTING SECTION 108 (Col. 4 Lines 46-52). The region cutting operation is carried out manually (Col. 3 Lines 62-66)); and

a controller for cutting out image data corresponding to the designated image area of the registered image (Col. 4 Lines 46-52) and

retrieving a desired image data containing image data which is identical or analogous to the image data cut out from the database (As taught by Koike, upon receiving a test image I_T, the matching region cut-out section cuts out a matching region image having a determined size based on a matching position initial value (X_0, Y_0) and provides the matching region image to the similarity computing section. Upon receiving the matching region image, the similarity computing section provides a readout request to the dictionary image storage to read out dictionary images. In response to the request, the dictionary image storage reads out N dictionary images with the feature point positions (X_f, Y_f) as shown in FIG. 2 and outputs them to the similarity computing section, which in turn computes the degrees of similarity or resemblance r (n, X_0, Y_0), (where n= 1, 2,...N) between the matching region of the test image and the N dictionary images (Koike, Col. 4 -- Lines 45-67). The object region detecting section detects the dictionary image I_{Dn} where the degree of similarity r (n, X, Y) is highest (Koike, Col. 5 -- Lines 50-60). The Koike teaching as discussed indicates the more similar of the image in the dictionary storage with the test image, the higher of the degree of similarity. For example, if the calculated degree of similarity is expressed as a percentage, and if the degree of similarity of the image in the dictionary image storage and the test image is 100%, the image in the dictionary storage is identical with the test image),

wherein the cutout image data is the actual image of the displayed image (The matching region image cut out is the actual facial image from the test image (Col. 3 Lines 60-67).

Regarding claims 23, 27 and 28, Koike teaches a method, program and apparatus for retrieving image data (Abstract) comprising:

a database for registering a plurality of images (FIG. 1, Col. 3 Lines 53-54, LIBRARY IMAGE STORAGE 104 is for images registering);

a display unit for displaying an image registered in the database on a display unit (A test image I_t captured from a camera is inputted into MATCHING SECTION 106 (Col. 4 Lines 40-45). The test image I_t is displayed as in FIG. 3);

a designator for designating an image area of the registered image displayed on display unit (Upon receiving the test image, the MATCHING REGION CUT-OUT SECTION 107A cuts out of the test image a matching region image having a predetermined size based on initial value (X_0, Y_0) designated by POSITION SHIFTING SECTION 108 (Col. 4 Lines 46-52). The region cutting operation is carried out manually (Col. 3 Lines 62-66)); and

a controller for cutting out image data corresponding to the designated image area of the registered image (Col. 4 Lines 46-52) and

retrieving a desired image data containing image data which is identical or analogous to the image data cut out from the database (As taught by Koike, upon receiving a test image I_T, the matching region cut-out section cuts out a matching region image having a determined size based on a matching position initial value (X_0, Y_0) and provides the matching region image to the similarity computing section. Upon receiving the matching region image, the similarity computing section provides a readout request to the dictionary image storage to read out dictionary images. In response to the request, the dictionary image storage reads out N dictionary images with the feature point positions (X_f, Y_f) as shown in FIG. 2 and outputs them to the similarity computing section, which in turn computes the degrees of similarity or resemblance r (n, X_0, Y_0), (where n= 1, 2,...N) between the matching region of the test image and the N dictionary images (Koike, Col. 4 -- Lines 45-67). The object region detecting section detects the dictionary image I_{Dn} where the

degree of similarity r (n, X, Y) is highest (Koike, Col. 5 – Lines 50-60). The Koike teaching as discussed indicates the more similar of the image in the dictionary storage with the test image, the higher of the degree of similarity. For example, if the calculated degree of similarity is expressed as a percentage, and if the degree of similarity of the image in the dictionary image storage and the test image is 100%, obviously, the image in the dictionary storage is identical with the test image),

wherein the cutout image data is the actual image of the displayed image (The matching region image cut out is the actual facial image from the test image (Col. 3 Lines 60-67).

Regarding claim 24, Kinjo teaches all of the claimed subject matter as discussed above with respect to claim 23, Kinjo further discloses ***the image corresponding to the image area is an image of a face of a person*** (FIG. 3).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q. PHAM whose telephone number is 571-272-4040. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JAMES K. TRUJILLO can be reached on 571-272-3677. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HUNG Q. PHAM/
Primary Examiner, Art Unit 2159

HUNG Q. PHAM
Primary Examiner
Art Unit 2159

March 31, 2009